



Vermont Educational Technology Plan

2004 - 2007

Contributors

This plan would not be possible without the significant efforts of the people listed here. In addition, nearly 100 others contributed through participation at 30 Interactive Learning Network (ILN) sites that were part of three statewide videoconferences held in November/December, 2003.

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Vermont K-12 Educational Technology Plan

Introduction

1. Vision

Vermont's vision for K-12 educational technology is that all our students, teachers, and school leaders — our entire school communities — are engaged with technologies that enhance student learning in a rich array of powerful ways. Educational technology is not about automating what has been done before. It centers, instead, on supporting new means of learning in our schools, and on opening up for our students the world of learning beyond school walls.

The right technologies can enable teachers to reexamine and newly imagine the ways they can teach and their students can learn. Powerful, flexible technologies can enable students at all grade levels to inquire, explore, and stretch themselves in new ways. Technology also enables each school, and the state's whole educational community, to share and employ the most up-to-date research and practical experience in how students learn best.

With the tools of educational technology, our students can engage experts, educators, fellow students and others, across Vermont and around the world. They can gather and assess information, build new, 21st century skills, join in meaningful work, and open fresh realms of discovery. They can find out for themselves that young people empowered by technology can explore the world and human knowledge in ever-expanding ways. They also have potent new means to communicate, to make a difference, to make themselves heard. Technology offers new tools — not just for work, leisure, and learning, but for citizenship.

2. Purpose

This plan has five linked purposes:

- First and foremost, to help bring about more engaging, more exciting, more powerful and useful learning opportunities and outcomes for all our students; also,
- To drive and shape local planning, so that each Vermont school can build and support its own best strategies for

linking educational technology with sound teaching practice;

- To bring mutual focus and shared direction to the work undertaken, in this important area, by the Department of Education, Vermont's higher education community, professional developers, and our key education partners;
- To point out the critical role of educational leadership in making it possible for teaching and learning to be supported by technology, and for technology to play a key role in implementing a new vision for how schools operate; and
- To share with the people of Vermont what needs to happen to provide all our young people with the learning opportunities that the innovative use of technology offers.

3. History, Collaborative Development, and Alignment with the No Child Left Behind Act (NCLBA)

This is Vermont's second plan for educational technology. The first, adopted in 1996, was detailed and comprehensive — perhaps more so than was practical to guide and stimulate various local initiatives. In 1999, the Department engaged Frank Watson, a retired University of Vermont professor and well-respected expert on learning technology, to review the '96 plan and report on how far Vermont had come toward fulfilling it. The Department's goal, then as now, was to make a new plan that builds on the first, while also creating ample room for locally shaped initiative.

Frank Watson's 1999 recommendations began the process of work toward a new technology plan. On January 8, 2002, the federal No Child Left Behind Act (NCLBA) called for a new national plan for educational technology. This Vermont plan will be aligned with that national plan when it is published.

The Department of Education (DOE) assembled a core team of eight educators from around Vermont, including Watson and seven others who are all closely involved with educational technology. The team put together a first draft that was built — as is this final plan

— on six essential “Elements” for educational technology planning in K-12 schools. These elements were developed in 2001 by Watson and his students in a graduate course at St. Michael’s College, “Information Technology: Its Influence on Learning.” The class drew on leading research-based frameworks to build and field-test a new model for information technology planning. The six resulting elements align to all 15 of No Child Left Behind’s requirements for educational technology.

These are the six elements, as they appear in this plan:

1. Standards for Students, Teachers, and School Leaders
2. Access and Infrastructure
3. Professional Development
4. Program Support
5. Program Assessment
6. Program Policies and Plans

Coming together to review the draft plan in October 2003 were 30 Vermonters, representing K-12 teachers, higher education, educational nonprofits, and school librarians. The participants in that work session suggested many improvements to the draft, and also discussed possible action strategies to go with the six elements.

The core team next used the Vermont Interactive Learning Network (ILN) to present a revised draft to over 100 key people at more than 30 sites around the state. The feedback and suggestions from that broad-based review were assembled by the core team, which presented a current draft of the plan to the State Board of Education (SBE) in May 2004. The State Board subsequently approved the plan on June 9, 2004.

4. Alignment with Vermont SBE/DOE’s Strategic Plan

This plan is closely linked with the Vermont State Board and Department of Education’s Strategic Plan. The Strategic Plan’s initial goal is to “Support high-quality, innovative instruction to improve student achievement.” This goal’s first objective envisions “all students achieving their full potential.” In today’s world, educational technology clearly plays a vital role in meeting this objective.

Under the second objective, “a statewide accountability system identifying student needs relative to achievement,” the Strategic Plan sets these strategies:

- Promote and use scientific research related to high-quality instruction;
- Publish and communicate research findings.

Technology is a tool that enables all educators to share, keep current with, and take advantage of the research on how students learn best, and what kinds of classroom practices and environments are most effective for student

learning.

Under the additional goal, “Practice and promote effective use of all resources,” the Strategic Plan sets this objective: “Cost-effective, high-quality delivery models for all students.” It then lists these strategies, among others:

- Promote independent study, distance learning and common classes through technology;
- Develop a Web-based survey to identify needs and contribute ideas for efficient and effective use of resources; and
- Research and promote cost-effective educational programs.

Indicators of progress for this segment include:

- Number of courses offered via teleconferencing;
- Number of independent study courses taught in secondary schools; and
- Number of high school students participating in college level courses.

Across Vermont, a growing number of schools are already using technology to aid independent study and to offer courses — including college-level Advanced Placement courses — to students in communities where these opportunities could not otherwise be made available.

Once initial investments are in place, technology is a highly cost-effective way to share resources and open new doors of learning and opportunity. Its user skills are indispensable for the jobs of the 21st century, and it is a vital, integral part of Vermont’s educational present and future.

5. General Recommendations

This plan has a three-year time frame. We recognize, however, that fully achieving some of the strategies and action steps described in these pages may take longer than three years and that we will have to prioritize our work according to available resources.

This is one of the reasons for this first action step, under Element 4, Program Support:

- Establish a State Educational Technology Advisory Council to guide implementation of this plan.

The Educational Technology Advisory Council will be charged, in large part, with keeping the implementation process moving forward in what we hope will be a steady, yet realistic manner. The steps listed here are the vital first stages in a long-term journey toward fulfilling the promise of educational technology in Vermont’s 21st century schools. Each strategy and each action step is one that the contributors to this plan believe to be important. We list them step by step, and we hope to accomplish them in the same way.

When the strategies and action steps say “The DOE and

partners will” achieve a certain task or tasks, it is important to note that in each of these cases, the state is already engaged and working with the partner or partners in question, or we

have mutually agreed that our commitments and responsibilities overlap in this particular area.

6 Elements of the State Information Technology Plan

Aligned with State NCLBA Requirements Listed Below

Standards for Students, Teachers, School Leaders

1. Outline of long-term strategies for improving student academic achievement through technology integration.
2. Goals and their relationship to state standards.
13. Description of how state will ensure full integration by 12/31/06.
14. Description of how the rural/urban locals will encourage teachers to remain.

Program Support

8. Description of how state will provide technical assistance, especially to high poverty schools and capacity for such assistance.
9. Description of technology resources and systems to establish best practices.
10. Description of state’s long-term strategies for financing technology.
13. Description of how state will ensure full integration by 12/31/06.
15. Description of how public and private entities will help implement and support the plan.

Access and Infrastructure

3. Description of how state will ensure increased access to technology, especially for high-need LEAs.
11. Description of state’s strategies for using technology to increase parental involvement.
13. Description of how state will ensure full integration by 12/31/06.

Professional Development

7. Description of how the plan incorporates teacher education, professional development, and curriculum development.
13. Description of how state will ensure full integration by 12/31/06.
14. Description of how the rural/urban locals will encourage teachers to remain.

Information Technology Planning for Improving Teaching and Learning

Program Policies

5. Description of how state will encourage innovative strategies, including distance learning.
6. Assurance this funding will supplement, not supplant.
12. Description of how state will ensure subgrants are of sufficient size, scope, and duration.
13. Description of how state will ensure full integration by 12/31/06.

Program Assessment

4. Description of process and accountability measures to evaluate extent to which this funding improves technology integration.

Element 1:

Standards for Students, Teachers, and School Leaders

This element centers on learning. We must design learning environments to achieve high academic performance through the alignment of standards, research-proven learning practices, and the use of contemporary information technology tools. Educational systems must be re-engineered systemically to meet the needs of all learners in a knowledge-based, global society.

This element aligns with the “Learning,” “Learning Environments,” “Professional Competency,” and “System Capacity” dimensions from Milken’s “Seven Dimensions for Gauging Progress.” It also aligns with the enGauge Framework’s “Essential Conditions: Effective Teaching and Learning Practices,” “Educator Proficiency With Effective Teaching and Learning Practices,” and “Systems and Leadership.” It uses the ISTE National Educational Standards (NETS) for students, teachers, administrators, information technology coordinators, and school leaders.

Goal: All standards will be supported by teachers and school leaders, in order to integrate information technologies with classroom practices designed to enhance academic achievement for all students, and to assist all students in mastering standards.

This element has the following components:

- National and state academic content standards.
- Research-based classroom practices.
- 21st Century Skills standards (<http://www.21stcenturyskills.org/>).
- ISTE National Education Technology Standards (<http://www.iste.org>) for:
 - Students
 - Teachers
 - Administrators
 - Technology Facilitation and Leadership
- Integration of information technologies.

Strategies:

1. With partners, the DOE will help schools incorporate educational technology planning into their action plans.
 - Develop and distribute “Guide to Integrating Technology in Action Planning.”
2. The DOE will require that local technology plans address the six elements of this plan.
 - Build “Six Elements” into the local planning process.
 - Provide guidance to schools by providing resources targeting each of the elements.
3. The DOE will assist schools throughout the process of meeting technology standards.

- Make schools aware of the ISTE student, teacher, and administrator standards. Encourage and support their local adoption.
 - See “Program Assessment” section of this plan for relative actions.
4. The DOE will develop Information Technology Grade Cluster Expectations (GCEs) and recommend assessments.
 - Complete creation of GCEs.
 - Convene professionals to align Grade 3-8 Performance Assessment tasks from autumn 2003 with the GCEs.
 - Create K-2 and 9-12 Performance Tasks, with rubrics, that align to Technology GCEs.
 - Create Instructional Guide for Technology GCEs.
 - Develop a comprehensive plan for the implementation of the Technology GCEs, including models of integration into content areas.
 5. The DOE will connect the integration of educational technologies with classroom practice to the licensing/ relicensing of teachers, through coordination and communication with higher education (HE) institutions and with the Vermont Standards Board for Professional Educators (VSBPE).
 - Work with higher education institutions to upgrade their programs to meet the technology specialist endorsement.
 - Communicate to the field information concerning IT licensing requirements for all newly licensed teachers.
 - Establish regular communication with VSBPE regarding educational technology standards for educational professionals.
 - Advocate with VSBPE for the development and requirement of specific IT standards for relicensing that are consistent with the IT requirements for newly licensed educational professionals.
 - Lead development and communication of models of “ed tech” management and administration, identifying coordinator, integrator, and technician roles.
 - Propose endorsement criteria for technology coordinators to VSBPE.
 6. Investigate integration with standards addressing technology education, library information literacy, 21st century skills, and others.
 - Convene representatives to discuss overlaps and common elements of the standards from the groups above, and make recommendations concerning results.

This element meets the following NCLBA/ESEA state requirements:

1. Outline of long-term strategies for improving student academic achievement through technology integration.
2. Goals and their relationship to state standards.
13. Description of how state will ensure full integration by 12/31/06.

Resources to support this element:

ISTE: www.iste.org

ISTE NETS for Students: cnets.iste.org/students/

ISTE NETS for Teachers: cnets.iste.org/teachers/

ISTE NETS for Administrators: cnets.iste.org/administrators/

ISTE NETS for Technology Facilitation and Leadership: cnets.iste.org/ncate/index.html

Milken: www.mff.org

Seven Dimensions for Gauging Progress: www.mff.org/publications/publications.taf?page=158

Professional Development Competency Continuum:
www.mff.org/publications/publications.taf?page=159

enGauge, Essential Conditions: www.ncrel.org/engage

Engaged Learning Profile: www.ncrtec.org/capacity/profile/profeng.htm

Technology in Schools: Suggestions, Tools, and Guidelines for Assessing Technology In Elementary and Secondary Education, National Forum On Education Statistics: Chapters 1, 4 and 6:

www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003313

NEIR-TEC Briefs: www.neirtec.org

Strategies for Improving Academic Achievement and Teacher Effectiveness

Promotion of Curricula and Teaching Strategies That Integrate Technology

Integration of Technology with Curricula and Instruction Innovative Delivery Strategies

Partnership for 21st Century Skills, Milestones for Improving Learning and Education: www.21centuryskills.org

Weaving a Secure Web Around Education; A Guide to Technology Standards and Security

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003381>

Element 2:

Access and Infrastructure

This element deals with equity, and with the information technology capacity of the system. It asks the question: Are there adequate information technology tools, networks, electronic resources, and support to meet the education systems learning goals for all users? Answering “yes” to this question ensures that all students, including those in high-poverty schools, have equitable access to technology that meets their learning needs.

This element is aligned with Milken’s “Learning Environments” and “Technology Capacity” dimensions, and with the enGauge, Digital-Age Equity, and Robust Access Anywhere “Essential Conditions.” The element is also aligned with the ISTE “Technology Support Index,” domains one and four.

Goal: All schools will have an information technology infrastructure that supports sufficient and equitable access to information technology tools and dedicated, broadband connections to the point of learning (classrooms, libraries, studios, offices, etc). This infrastructure will support the delivery of high-quality digital content to all students, teachers, school leaders, and paraprofessionals. The infrastructure will also facilitate improved community involvement and communication.

This element has the following components:

- Sufficient infrastructure to ensure access to high-quality information technologies.
- Support aspects.
- Equitable and sufficient access to electronic resources for learning.

Strategies:

1. The DOE will encourage schools to ensure adequate and equitable technology capacity. In this pursuit, the state will:
 - Develop a model for local technology planning.
 - Provide support and technical assistance to schools in the formation of their plan.
 - DOE will recommend minimum equipment standards that support equitable access and infrastructure.
 - Identify the criteria and considerations necessary to address equitable distribution of technology resources.
 - Publish a guide based on above criteria and considerations.

2. The state will develop an information clearinghouse, to include broadband options and school community communication resources. In this pursuit, the DOE will:
 - Identify resources to support planning for adequate and equitable infrastructure.
 - Advocate for cost-effective options for adequate broadband Internet access for the K-12 education community.
 - Support the development of resources and materials to improve local schools’ ability to communicate with parents, students, and other community members.

This element meets the following NCLBA/ESEA state requirements:

3. Description of how state will ensure increased access to technology, especially for high-need LEAs.
5. Description of how state will encourage innovative strategies, including distance learning.
8. Description of how state will provide technical assistance, especially to high poverty schools and capacity for such assistance.
9. Description of technology resources and systems to establish best practices.
11. Description of state’s strategies for using technology to increase parental involvement.

Resources to support this element:

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enGauge, Essential Conditions: www.ncrel.org/engauge

ISTE, Technology Support Index: tsi.iste.org/techsupport

Technology in Schools: Suggestions, Tools, and Guidelines for Assessing Technology In Elementary and Secondary Education, National Forum On Education Statistics: www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003313

NEIR-TEC Briefs, Steps to Increase Accessibility: www.neirtec.org

National Staff Development Council E-Learning for Professional Development, E-Learning for Educators: www.nsdc.org/educationindex.htm

Element 3:

Professional Development

This element is focused on a professional plan for the integration of information technology tools to enhance teaching and learning. It calls for professional development experiences for teachers, school leaders, and school library-media personnel that are research-based, supported by needs assessment, linked to curriculum and student performance, standards-based, and supported by ongoing assessment.

This element aligns with Milken's "Professional Competency Dimension," the enGauge Essential Condition "Educator Proficiency with Effective Teaching and Learning Practices," and the Apple Classrooms of Tomorrow (ACOTS) "instructional evolution" stages. It uses the National Staff Development Council's Professional Development Standards, and the ISTE NETS for teachers and administrators and for Technology Facilitation and Leadership as standard frameworks. It encourages schools and educators to use distance learning to expand the sources of professional development.

Goal: The DOE, schools, higher education, professional organizations, and others will provide high-quality, research-based professional development that is standards-based and part of the daily routine. This professional development will enable all educators (pre-service teachers, in-service teachers, administrators, and paraprofessional staff) to become and remain highly qualified in the use and integration of information technologies to help all students meet academic standards and build 21st century learning skills.

This element has the following components:

- Professional development standards.
 - ISTE
 - National Staff Development Council (NSDC)
- Ongoing needs assessment and evaluation of professional growth.
- Multiple delivery strategies, including distance learning.

Strategies:

1. The DOE and all partners will support the development and communication of an information clearinghouse on the ways that information technology can support teaching, learning, and professional development (PD). In this pursuit, the state will:
 - Develop and maintain strategic partnerships with those institutions involved with research and technology best practice — i.e. EDC, NEIRTEC, etc.
 - Cite examples of best practices and authentic learning with effective educational technology integration.
 - Make presentations at meetings and conferences, participate in classes and listservs, keep in phone

contact, and review videos and publications to keep current on technology integration practices information from various state and regional technology partners.

2. The DOE and partners will organize and/or support a variety of professional development opportunities around Vermont for school leaders. The DOE will:
 - Coordinate with all VT leadership initiatives to include educational technology professional development as part of curricular content. State will host meeting for these initiatives, to discuss implementation.
 - Encourage school leadership to support a technology-integration professional development focus through communications with the Commissioner.
 - Review other state models, and recommend ways that the Vermont state educational leadership can support technology integration.
 - With partners, organize and/or support a variety of professional development opportunities around the state, for school leadership groups at meetings and conferences to communicate about best-practice technology professional development.
3. The DOE and partners will provide models of professional development for technology integration that are based on the National Staff Development Council standards. The DOE will:
 - Review standards associated with integration of technology into curricula to enhance learning.
 - Consolidate standards into a resource list for providers, and post the list on the clearinghouse.
4. With partners, the DOE will support and model the standards-based, integrated use of technology in all state-level professional development and initiatives.
 - Develop and publish recommendations for technology aids that supplement presentations/workshops.
 - Identify relevant partners, prioritize first contacts, and implement support plan.
 - Provide professional development at the Department of Education that improves the capacity of staff to model technology use (See SBE/DOE Strategic Plan).
5. The DOE and partners will support professional development on how to create and deliver curricular units embedded with effective, technology-based instructional techniques.
 - Identify effective instructional techniques for the integration of technology.
 - Review examples and provide models of student successes with technology-integrated units.
 - Support development of pilot projects that illustrate effective technology-integrated units.
 - The DOE will develop standard list of Web sites, listservs, conferences, and newsletters for use as communication tools about technology-integration

professional development opportunities.

- The DOE will host focus-group sessions at association and professional development organization meetings (VSA/VSBA, NEA conventions, VEMA, Dynamic Landscapes, Vermont Fest, etc), to meet with leaders, administrators, principals, and curriculum and library media specialists to inform them about standards for technology-integration professional development for teachers.
 - The DOE will host meetings for Vermont professional organizations and associations, to discuss goals for technology integration goal into their professional development content.
6. Both the DOE and higher education will strengthen their communication on the consistency of in-service and pre-service expectations/standards for technology integration. The DOE will:
- Seek input from higher education (HE) partners on the current status of technology integration instruction in their curricula.
 - Communicate with HE partners about how their students are meeting educational technology standards (ISTE).
 - Communicate state plans and/or resources for technology integration to HE for their input.
7. Establish and continually support a working relationship with the Educational Service Agencies, in order to integrate technology into their work. The DOE will:
- Communicate with ESAs about all resources available in clearinghouse, seeking additional input.
 - Encourage ESAs to develop plans for technology implementation in all curricular areas of professional development, integrated into daily work where possible.
8. Support the Vermont Classroom Observation Tool (VCOT), or a comparable tool, as a resource for local leaders to help them identify professional development needs. The DOE will:
- Communicate to the field about these tools on clearinghouse and listservs.
 - Support the use of these tools through trainings.

This element meets the following NCLBA/ESEA state requirements:

1. Outline of long-term strategies for improving student academic achievement through technology integration.
5. Description of how state will encourage innovative strategies, including distance learning.
7. Description of how the plan incorporates teacher education, professional development, and curriculum development.
9. Description of technology resources and systems to establish best practices.
13. Description of how state will ensure full integration by 12/31/06.
14. Description of how the rural/urban locals will encourage teachers to remain.

Resources to support this element:

ISTE: www.iste.org

National Staff Development Council, National Standards for Staff Development: www.nsdc.org/educatorindex.htm

Milken: www.mff.org

Professional Development Competency Continuum: www.mff.org/publications/publications.taf?page=159

enGauge, Essential Conditions: www.ncrel.org/engage

ACOT: www.apple.com/education/k12/leadership/acot/library.html

National Staff Development Council E-Learning for Professional Development, E-Learning for Educators: www.nsdc.org/educationindex.htm

Element 4:

Program Support

This element involves the leadership, funding, technical, educational, and community support necessary to develop and implement a comprehensive system to use information technology tools to improve academic achievement for all students.

This element aligns with the Milken “System Capacity,” “Community Connections,” and “Technology Capacity” dimensions, and with the enGauge “Robust Access Anywhere, Anytime,” “Systems and Leadership,” and “Forward-Thinking, Shared Vision” Essential Conditions. The element is also aligned with the ISTE “Technology Support Index,” domains two and three.

Goal: Providing and guiding the development of leadership, funding, public-private partnerships, and technical, educational, and community support for a comprehensive information technology system. This system should increase information technology integration and access, in order to improve academic achievement for all students, teachers, school leaders, and paraprofessional staff.

This element has the following components:

- State and local support strategies and systems that meet the needs of schools.
- Information technology resources to support best practices in schools.
- State and local long-term strategies for future funding of information technology programs in schools.

Strategies:

1. The DOE will provide support for educational technology initiatives of educational organizations within Vermont.
 - Establish a State Educational Technology Advisory Council to guide implementation of this plan.
 - Identify specific organizations as priorities to receive support and collaboration (i.e. VSBA, VPA, VSA).
2. The DOE and partners will work to support affordable, cost-effective broadband access for all schools.
 - Participate in development of options to ensure educational needs are represented (i.e. broadband collaborative, communication with PSB & ISPs).
 - Support communication of options to schools.
3. The DOE will encourage the development of technology leadership initiatives that provide support for superintendents, principals, other administrators, and technology leaders in schools.
 - Develop specific plans and strategies to address technology leadership needs, based on ISTE Educational Technology Leadership standards.
 - Provide substantial support for technology leadership

initiatives.

4. Expand, leverage, and make more efficient the use of funding sources in support of educational technology.
 - Increase Vermont school participation in the E-Rate program.
 - Support efforts to offer cost-effective broadband to schools.
 - Use the Consolidated Federal Programs process to promote educational technology initiatives through all title funds (I, IIA, IID, IV, V).
 - Improve communication with legislators regarding educational technology initiatives and successes.
4. Expand, leverage, and make more effective use of public/private partnerships to provide additional resources and support for educational technology programs.
 - Provide guidance to local districts on partnership creation.
 - Develop a comprehensive dissemination plan to broaden awareness of and involvement with opportunities provided through existing partnerships (Vermont/IBM RE3 project, Marco Polo, Intel Teach to the Future, etc.).

This element meets the following NCLBA/ESEA state requirements:

1. Outline of long-term strategies for improving student academic achievement through technology integration.
3. Description of how state will ensure increased access to technology, especially for high-need LEAs.
5. Description of how state will encourage innovative strategies, including distance learning.
8. Description of how state will provide technical assistance, especially to high poverty schools and capacity for such assistance.
10. Description of state's long-term strategies for financing technology.
12. Description of how state will ensure subgrants are of sufficient size, scope, and duration.
15. Description of how public and private entities will help implement and support the plan.

Resources to support this element:

Milken: www.mff.org

Seven Dimensions for Gauging Progress: www.mff.org/publications/publications.taf?page=158

enGauge, Essential Conditions: www.ncrel.org/engage

ISTE, Technology Support Index: tsi.iste.org/techsupport

Technology in Schools, Suggestions, Tools, and Guidelines for Assessing Technology In Elementary and Secondary Education, National Forum On Education Statistics: www.nces.ed.gov/pubsearch/pubinfo.asp?pubid=2003313

NEIR-TEC Briefs, Support Resources: www.neirtec.org

Element 5:

Program Assessment

This is the accountability element. “Accountability” is defined here to mean the responsibility for accomplishing the development of comprehensive information technology systems that enable excellent teaching, and that support learning for all students, K-12. This element conveys a responsibility on the education system and educators to establish and implement a system for documenting progress and reporting results.

Goal: The state and school districts will be accountable for the effective utilization and integration of information technology resources to enhance and improve the academic achievement and development of 21st century learning skills for all students.

This element has the following components:

- Development and implementation of total program assessment tools (i.e., information technology program audits).
- Data collection, data use and reporting procedures.
- Assessment of student achievement in relation to the integration of information technologies.

Strategies:

1. The DOE will work with partners to help districts identify ways to assess technology literacy, technology programs, technology integration, and 21st century skills.
 - Develop an educational-technology Web portal to collect and share information pertaining to the implementation of technology literacy, integration, and 21st century skills for all students.
 - Conduct regional professional development sessions for schools in the assessment of technology literacy, integration and 21st century skills. The State Educational Technology Advisory Council will study measurement tool options and make recommendations for all schools.
2. The DOE will support the development and implementation of Grade Cluster Expectations for information technology.
 - See “Standards” Element for specific GCE implementation steps.
 - Disseminate information on the use of the information technology GCEs via video-conferencing, the Web, and regional professional development sessions.
 - Assist locals in reporting assessment data on technology GCEs.
3. The DOE will support schools that attempt to collect and analyze student achievement data regarding integration of technology in classroom instruction.

- Identify free and inexpensive tools available to gather technology integration data.
 - Help local districts build capacity for data collection and analysis through professional development.
 - Organize videoconferencing and face-to-face meetings to inform schools about collecting, analyzing, and reporting technology literacy and integration data.
 - Leverage existing data sources (Learning Opportunities survey, Educator Census) to minimize duplication, and enhance analysis and collaboration.
4. The DOE will determine the impact of NCLBA funding on technology literacy and integration.
 - Collect and report annually, beginning in spring 2005, baseline data on technology literacy and integration in Vermont schools, through an online data gathering process.
 5. Encourage and enable schools to achieve total educational technology program assessment.
 - State will recommend tools and resources to enable locals to assess their educational technology program.

This element meets the following NCLBA/ESEA state requirements:

1. Outline of long-term strategies for improving student academic achievement through technology integration.
4. Description of process and accountability measures to evaluate extent to which this funding improves technology integration.
13. Description of how state will ensure full integration by 12/31/06.

Resources to support this element:

Milken: www.mff.org

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Technology in Schools, Suggestions, Tools, and Guidelines for Assessing Technology In Elementary and Secondary Education, National Forum On Education Statistics: www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003313

Texas Star Chart

http://www.tea.state.tx.us/etac/campus_txstar/

Element 6:

Program Policies and Plans

Making plans and setting policies for the educational use of information technologies can help education leaders clarify what they want to accomplish, as well as when, where, how, through whom, and — importantly — why it should be done. Information technology plans and policies are communication tools.

Goal: The state and districts will develop policies and/or plans to sustain and continue to develop adequate information technology systems, and their appropriate use, for all students, teachers, administrators and paraprofessionals.

This element has the following components:

- Acceptable use policies.
- Identification of the program areas where the policies/plans will be incorporated.
- Involvement of a broad range of stakeholders, including leadership, in policy/plan development.

Strategies:

1. The DOE will develop model policies for local school districts. In this pursuit, the state will:
 - o Convene a policy group, identify the areas in need of development including distance education, student safety, and compliance with standards.
 - o Prioritize model policy needs.
 - o Write and publish model policies.

This element meets the following NCLBA/ESEA state requirements:

2. Goals and their relationship to state standards.
6. Assurance this funding will supplement, not supplant.
10. Description of state's long-term strategies for financing technology.
13. Description of how state will ensure full integration by 12/31/06.

Resources to support this element:

NEIR-TEC, Dede paper on state IT policies:
www.neirtec.org/statepolicy/forum1/default.asp

Policy examples, North Carolina State IT Plan:
www.tps.dpi.state.nc.us/techplan2000/techplan2000.html#Policy

Weaving a Secure Web Around Education; A Guide to Technology Standards and Security
<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003381>

Directions for Completing the “Local Technology Plan”

General Information

- The “Local Technology Plan,” if accepted by the Vermont Department of Education, allows schools covered by the plan to qualify for Title IID funding under the No Child Left Behind Act (NCLBA), and under E-Rate.
- Once approved, the plan will remain in effect until June 30, 2007, at which time a new plan must be submitted to the Department of Education.
- A supervisory union, or single district, may submit one plan covering all schools, if the plan meets the following requirements:
 - Unifying SU/District goals apply to all schools.
 - Specific school-level actions are included, and all schools are substantially and individually addressed.
 - The SU/District plan does not inhibit the ability of an individual school to integrate its portion of the technology plan with the school’s Action Plan.
- Individual schools may submit a plan that covers only that school.
- Contributors to the plan should include a breadth of stakeholders — including school administrator, community member, teacher, student, paraprofessional, and other interested parties.
- The plan must be submitted electronically (see “Process for Submission” below). ONLY the signature page must be submitted in hard copy.

Completing the Plan

The plan is composed of four parts:

- I. *Executive Summary*
- II. *Goals*
- III. *Responses to No Child Left Behind Act Requirements*
- IV. *Signature /Certification Page **

PART I. EXECUTIVE SUMMARY: The purpose of this section is for each school, district, or supervisory union to produce a two-to-five-page document that provides a broad description of your initiatives that could be useful to community members and others who are interested in your plan. There is no “form” for this section.

A. History/Status

1. On reviewing your 2002 Transitional Plan, describe the three most significant successes and the reasons for

those successes.

2. On reviewing your 2002 Transitional Plan, describe the three most significant challenges that remain and the cause of those challenges.
3. From those successes and challenges, provide a general description of things you will do differently in the implementation of this new plan.
4. What role did leadership play in the successes and/or challenges from your previous plan?

B. Leadership Needs: What is needed at the leadership level (SU/District, Building, Other) in order to implement this plan? (Ex. Need for leader to become informed about and model technology best practices and learning theories; Need to have leader model the use of technology to enhance organizational improvement)

C. Six Elements Status: Describe, in general, the overall status or progress of your technology initiatives relative to the six major elements (Professional Development, Standards for Students, Teachers, and Leaders, Support for Information Technology Initiatives, Program Policies, Overall Program Assessment, Access and Infrastructure)

PART II: GOALS RELATED TO STATE PLAN “SIX ELEMENTS” AND NCLBA. The purpose of this part is to articulate the SU/District or school’s specific goals for using educational technology tools to improve student performance and achievement. The State Plan’s “Six Elements” and the NCLBA requirements should be used as guidelines in designing goals. The goals must be appropriate to the level of the plan: SU/district, or individual school.

PART III: RESPONSE TO NO CHILD LEFT BEHIND ACT REQUIREMENTS

These twelve (12) pages follow the specific requirements of NCLBA. There are three sections on each page:

- A. Action Plan** – For each NCLBA requirement, complete the table as follows:
1. *Action Step(s)* – Briefly state the measurable action(s) needed in order to address this requirement over the course of this plan (approximately 30 months).
 2. *Entity* – Indicate whether the action applies to the entire SU/District (all schools and district offices), all schools only, or particular schools.

3. *NCLBA Component* – Indicate whether the action addresses technology literacy, technology integration, or assessment/accountability. If none of those apply, leave blank.
4. *Indicator* – What will you use to determine when/if progress is being made on the particular action?
5. *Responsible Party* – What person(s) or group will have primary responsibility for implementing the action?
6. *Resources* – What resources (materials, access to individuals, leadership, time, money) are needed in order for the action to take place?
7. *Timeline* – Identify the date this task will be completed, or the timeframe in which it is expected to occur.

B. Priority – Check off the level of priority for this particular NCLBA requirement.

C. Element Alignment – Check off the Element(s) most closely addressed by this page.

PART IV. *SIGNATURE/CERTIFICATION PAGE: Complete this form as directed. The “Technology Contact Person” will be the person to whom we send future announcements, notices, and other technology-related materials.

* An original of this page **MUST** be snail-mailed (see address below).

Process for Submission

- **To e-mail your Technology Plan:** Attach your plan as either a Microsoft Word, HTML, or PDF file and e-mail by December 31, 2004 (or December 20, 2004 if you will be applying for E-Rate) to: Bill Romond at billromond@education.state.vt.us.

- The Signature Page **MUST** be snail-mailed to:

Bill Romond
Vermont Dept of Education
120 State Street
Montpelier, VT 05620-2501

Part II: Goals related to State Plan “Six Elements” and NCLBA

The purpose of this part is to articulate the SU/District or school’s specific goals for using educational technology tools to improve student performance and achievement. The State Plan’s “Six Elements” and the NCLBA requirements should be used as guidelines in designing goals. Your plan may have more, or less, than six goals.

Goal # 1

Rationale:

Goal # 2

Rationale:

Goal # 3

Rationale:

Goal # 4

Rationale:

Goal # 5

Rationale:

Goal #6

Rationale:

Part III: Response to NCLBA

1. Strategies for improving academic achievement and teacher effectiveness:

Action steps that the school will take to improve academic achievement, including technology literacy, and improve the capacity of all teachers to effectively integrate technology into the curriculum and instruction.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

☐ Standards for Students, Teachers, and School Leaders ☐ Program Support
☐ Access and Infrastructure ☐ Program Assessment
☐ Professional Development ☐ Program Policies

2. Steps to increase accessibility:

- Describe the steps the school will take to ensure increased access to technology.
- How will the school use federal funds to help students in high poverty, or schools that are identified for corrective action under Title I, prepare teachers to integrate technology effectively into curricula and instruction?

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?

NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability

Indicator(s):

Resources:

Responsible Parties:

Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?

NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability

Indicator(s):

Resources:

Responsible Parties:

Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?

NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability

Indicator(s):

Resources:

Responsible Parties:

Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

3. Promotion of curricula and teaching strategies that integrate technology:

Describe how the school will identify and promote curricula and teaching strategies that integrate technology effectively into curricula and instruction, based on a review of relevant research, and leading to improvements in student achievement.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

4. Professional development:

Describe how the school will provide high-quality, ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to further the effective use of technology in the classroom or library media center.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

5. Technology type and cost:

Describe the type and estimated costs of the technologies to be acquired
(*note: this should be a broad overview, not a listing of hardware.*)

Technology acquisition and estimated cost (Narrative response)

6. Coordination with other resources:

Describe how the school will coordinate activities funded through E2T2 with activities supported with funds from other sources (funds from other federal Title programs, state and local sources, that support technology acquisition and integration must be coordinated under the technology plan).

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

7. Integration of technology with curricula and instruction:

Describe how the school will integrate technology (including the use of software and electronically delivered materials) into curricula and instruction. After each action step, indicate the anticipated date for the initiation of that item.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

8. Innovative delivery strategies:

Articulate the action steps that will show how the school will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

9. Parental involvement:

Describe how the school will use technology effectively to promote parental involvement and increase communication with parents. Include the strategies that will be used to inform parents about the technologies and their proper use.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

10. Collaboration with adult literacy service providers:

Describe how the school will develop programs, where applicable, in collaboration with adult literacy service providers. If this item is currently “not applicable” please provide an explanation, then suggest ways that the school could collaborate with Adult Literacy providers in the future.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

11. Accountability measures:

Describe the accountability measures that the applicant will use to evaluate the extent to which activities funded under this program are effective in integrating technology into curricula and instruction. Specifically address increasing the ability of teachers to teach (with technology), enabling students to reach challenging State academic standards.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

12. Supporting resources:

Describe the supporting resources, such as services, software, other electronically delivered learning materials, and print resources, that will be acquired to ensure successful and effective uses of technology.

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Action Step:

Entity: ☐ Individual School(s): _____ ☐ All schools?
 NCLBA Component: ☐ Integration ☐ Literacy ☐ Accountability
 Indicator(s):
 Resources:
 Responsible Parties:
 Timeline:

Priority: ☐ Primary ☐ Secondary ☐ Tertiary

Select all of the Elements to which these Action Steps apply:

- | | |
|---|---|
| <input type="checkbox"/> Standards for Students, Teachers, and School Leaders | <input type="checkbox"/> Program Support |
| <input type="checkbox"/> Access and Infrastructure | <input type="checkbox"/> Program Assessment |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Program Policies |

Part IV: Signature/Certification Page

General Information: The signature (below) certifies that this school, district, or supervisory union meets all requirements for Informational Technology planning as defined by the State of Vermont under the federal No Child Left Behind legislation.

Name of school covered by this Technology Plan: _____

Current Plan Expiration Date: _____

Technology Contact Person: _____

Title: _____

Phone: _____

E-mail address: _____

Contributors to this Educational Technology Plan and their affiliation. We recommend involvement by a breadth of stakeholders — including school administrator, community member, teacher, student, paraprofessional, and other interested parties.

_____	_____
_____	_____
_____	_____
_____	_____

Certifications:

This Educational Technology Plan was approved by our School Board on:

This Educational Technology Plan will be approved by our School Board on:

Children's Internet Protection Act (CIPA) certification:

One box (below) must be checked for the school to qualify for funds under this program.

- ☐ The school certified CIPA compliance in it's last E-Rate application
- ☐ The school did not certify compliance with CIPA in it's last E-rate application, but does certify, as part of this technology plan, that it meets CIPA requirements
- ☐ The school has not complied with CIPA requirements but has received a one-year waiver from the US Secretary of Education under section 2441 (b) (2) (C) of the ESEA
- ☐ The CIPA requirements do not apply because no funds made available under this program are being used to purchase computers to access the Internet, or to pay for direct costs associated with accessing the Internet.

Signature: _____ Date: _____

(Superintendent/CEO)

Vermont Statewide Educational Technology Initiatives

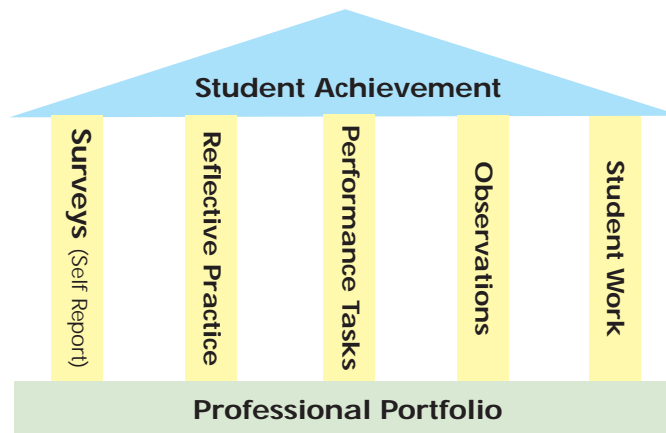
Purpose: The intent of publishing this table is to give Vermont educators (and others) some idea of the state-level initiatives currently underway (or recently completed). Awareness of these initiatives should provide educators with resources and materials that are not already identified elsewhere in the State Plan

Name	Description	Funding Source & Amount	Point of Contact	Timeframe
Adelphia	Adelphia will install a cable modem in every school as the fiber network expands.	NA	Janet Franz – <i>Community Affairs Manager</i>	Ongoing
Gates Foundation Grant (“Its About Leadership”)	To provide every public and private school superintendent and principal access to professional development on whole systems improvement and creating a high-performance learning environment supported by appropriate technology.	Gates Foundation (\$675,000)	Jill Mackler Bill Romond	September 1, 2003 – June 30, 2005
Interactive Learning Network (ILN)	A state-of-the-art video conferencing network connecting all Vermont high schools located in the Verizon Corporation territory, the Vermont DOE, the Vermont Institutes, and the Vermont Legislature. The system is used for course-sharing, professional development, and professional meetings	1. Verizon (\$6 Million - donated connectivity + \$600,000 personnel) 2. Technology Literacy Challenge grants - \$500,000	Phil Hyjek Carolyn Jones, Peter Drescher, Richard Campbell Carrie Biggam	January 1, 2001 – June 30, 2005
Marco Polo State Administrator	To facilitate the training of Vermont teachers in the use of Marco Polo Internet Content for the Classroom and to improve educator quality and capacity to deliver standards-based instruction.	WorldCom Foundation (\$25,000)	Carolyn Jones	September 1 2001 - June 30, 2002
Marco Polo Web Integration Grant	To ensure that Marco Polo content is accessible to all educators through the Standards Into Action website and that all Marco Polo content is aligned to the Vermont Framework of Standards and Learning Opportunities.	WorldCom Foundation (\$25,000)	Mort Butler	January 1, 2002 – June 30, 2003
MCI Grant	PSB-ordered grant to support personnel for the ILN project	MCI Communications (\$375,000)	Phil Hyjek	9/1/2001 - 6/30/2004
No Child Left Behind - Technology Grant program	Vermont has received approximately \$6.75 million over the last three years through the No Child Left Behind Act (NCLBA). Half is distributed through competition to Vermont schools and half is distributed under the Consolidated Federal Programs at the VT DOE. Priority is given to high-poverty schools	US DOE \$2.25 million per year	Bill Romond	Annual
Standards Into Action	An online resources of professional tools for teachers to support the creation and distribution of standards-based lessons and units built around the VT Framework of Standards and Learning Opportunities.	IBM \$2 Million	TBA (<i>Content</i>) Mort Butler Bill Romond	Ongoing
Technology Grade Cluster Expectations (GCEs)	Vermont’s GLE/GCE project is an extension of the Vermont Framework. The technology GCEs are built upon previously created Performance Tasks. The GCEs give educators specific expectations for student’s technology skills and thus provide a focus for assessment	VT DOE	Lyn Haas Bill Romond Ed Barry Gregg Martin	June 2004: Publication Summer 2004: Performance Tasks
Technology Planning Support	Federal guidelines require all states to have a technology plan in order to access federal dollars. The state plan drives the content requirements of the local plans required from each school or district. VT DOE provides guidelines, content requirements, and some support. The Vermont Institute provides support for local plan implementation for high-poverty schools	NA	Bill Romond Peter Drescher Carolyn Jones	Ongoing
Vermont/IBM Reinventing Education-3	This \$1.5 Million grant supports the development of online “collaboration” tools targeting mentoring, professional development, and the strengthening of pre-service programs.	IBM \$1.5 Million in services and cash	Bill Romond, Program Coordinator	September 1, 2002 – June 30, 2005

**State Technology Plan Requirements:
Title II, Part D (Enhancing Education through Technology from NCLBA)**

1. Outline of long-term strategies for improving student academic achievement through technology integration
2. Goals and their relationship to state standards
3. Description of how state will ensure increased access to technology, especially for high-need Local Education Agencies (LEAs)
4. Description of process and accountability measures to evaluate extent to which this funding improves technology integration
5. Description of how state will encourage innovative strategies, including distance learning
6. Assurance this funding will supplement, not supplant
7. Description of how the plan incorporates teacher education, professional development, and curriculum development
8. Description of how state will provide technical assistance, especially to high poverty schools and capacity for such assistance
9. Description of technology resources and systems to establish best practices
10. Description of state's long-term strategies for financing technology
11. Description of state's strategies for using technology to increase parental involvement
12. Description of how state will ensure subgrants are of sufficient size, scope, and duration
13. Description of how state will ensure full integration by 12/31/06
14. Description of how the rural/urban districts will encourage teachers to remain
15. Description of how public and private entities will participate in the implementation and support of the plan

Multiple ways to gauge progress



Teacher Standards - ISTE & Teaching (i.e., INTASC, NBPTS)

(Adapted from SETDA, 2002)

Gauging Progress	
What	How
Student Work	Portfolios, demonstrations, school reports
Observations	Vermont Classroom Observation Tool (VCOT)
Performance Tasks	Information Technology GCEs, Framework for IT Performance Assessment, Standards Into Action (SIA)
Reflective Practice	Vermont/IBM Reinventing Education-3, SIA, Vermont Mathematics Partnership, National Board for Professional Teaching Standards
Surveys & Reports	Annual technology survey, TAGLIT, Learning Opportunities Survey, SETDA Core Data Elements, Educator census

Glossary items

21st Century Learning Skills – Refers to the skills needed to flourish in today's society and in the future. Today discrete disciplines have emerged around information, media, multicultural, and visual literacies. It is the combination of literacies that can better help K-12 students and adult learners address and solve the issues that confront them.

Acceptable Use Policy – This refers to policies that restrict the way in which a network may be used. Usually, a network or school administrator makes and enforces decisions dealing with acceptable use.

Baseline data – Baseline data is basic information gathered before a program or project begins. It is used later to provide a comparison for assessing program impact.

Best Practices – the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency.

Broadband – A communication network in which the bandwidth can be divided and shared by multiple simultaneous signals (voice, data, video). The network can carry multiple signals by dividing the total capacity of the medium into multiple, independent bandwidth channels, where each channel operates only on a specific range of frequencies.

Broadband Collaborative – A recent undertaking by the Vermont Institutes to aggregate broadband connectivity to Vermont's high schools in order to minimize costs

Consolidated Federal Programs (CFP) – Titles I, IIA, IID, IV, and V under the No Child Left Behind Act. States and local education agencies may combine applications for funding under these titles into one application.

Distance Learning – Learning where the instructor and the students are in physically separate locations. Can be either real time or delayed. Can include correspondence, video or satellite broadcasts, or e-Learning.

EDC – Education Development Center

Educational Technology – Includes all components of informational technology used in the delivery of educational materials and concepts (Mississippi State University)

E-learning – Education via the Internet, network, or standalone computer. Network-enabled transfer of skills and knowledge. e-learning refers to using electronic applications and processes to learn. e-learning applications and processes include Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM.

Essential Conditions – A combination of essential conditions are required to create learning environments conducive to powerful uses of technology, including:

- * Vision with support and proactive leadership from the education system
- * Educators skilled in the use of technology for learning
- * Content standards and curriculum resources
- * Student-centered approaches to learning
- * Assessment of the effectiveness of technology for learning
- * Access to contemporary technologies, software, and telecommunications networks
- * Technical assistance for maintaining and using technology resources
- * Community partners who provide expertise, support, and real-life interactions
- * Ongoing financial support for sustained technology use
- * Policies and standards supporting new learning environments

Grade Cluster Expectation (GCE) – A GCE is a stated objective that relates directly to Vermont Standards and the National Educational Technology Standards for students. A GCE differentiates performance on content knowledge or skills between adjacent grade clusters; As a set, GCEs can be used for local curriculum and assessment development and should lead to focused, coherent, and developmentally appropriate instruction without narrowing the curriculum

Interactive Learning Network (ILN) – Vermont’s IP-based videoconferencing system installed in all high schools, Vermont Institutes, and the Vermont Department of Education.

Information Clearinghouse – A “portal” or entry point to a storehouse of information on a particular topics. For purposes of this plan for example, the information clearinghouse may consist of assorted web links to sites addressing student assessment of technology skills.

Infrastructure – Physical structures that form the foundation for development of a technology system.

In-service – In education, refers to teachers who are employed in their field.

ISP – Internet service provider

ISTE – International Society for Technology in Education

Job-embedded – Usually refers to professional development offered during the school day and in the classroom.

Local Education Agency (LEA) – In Vermont this is considered to be the supervisory union.

NEIRTEC – New England and the Islands Regional Technology in Education Consortium

No Child Left Behind Act (NCLBA) – With passage of the No Child Left Behind Act on January 8, 2002, Congress reauthorized the Elementary and Secondary Education Act (ESEA)—the principal federal law affecting education from kindergarten through high school. It is built on four pillars: accountability for results; an emphasis on doing what works based on scientific research; expanded parental options; and expanded local control and flexibility. <http://www.ed.gov/nclb/overview/intro/index.html>

Performance Tasks – An authentic, meaningful task that requires the students to synthesize knowledge and skills learned and apply them to construct a response, create a product and/or performance that demonstrates understanding.

Portal – A Web page that serves as a point of entry for surfers of the World Wide Web. Note: Most of the popular portals are designed to optimize their compatibility with one or more Web search engines. Many portals also offer value-added services such as e-mail accounts, Web page hosting, or filtered information flow, with the costs of these services

being underwritten by advertising.

Pre-service – In education, refers to teachers who have not yet completed their bachelor’s degree.

PSB – Public Service Board

ROPA – “Results Oriented Program Approval”. Higher education and teacher preparation institutions must undergo this process in order to receive program approval from the Vermont Department of Education.

Rubrics – A set of authoritative rules to give direction to the scoring of assessment tasks or activities. To be useful, a scoring rubric must be derived from careful analysis of existing performances of varying quality. A task-specific rubric describes levels of performance for a particular complex performance task and guides the scoring of that task consistent with relevant performance standards. (A task-specific rubric is more specific than a performance standard and can apply a performance standard to a particular context found in a performance task.) A general rubric is an outline for creating task-specific rubrics, or for guiding expert judgment, where task-specific scoring rules are internal to the scorer.

Technology integration – Curriculum integration with the use of technology involves the infusion of technology as a tool to enhance the learning in a content area or multidisciplinary setting. Technology enables students to learn in ways not previously possible. Effective integration of technology is achieved when students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions — as accessible as all other classroom tools. http://cnets.iste.org/students/s_currinteg.html

Technology literacy – is the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century

VPA – Vermont Principal’s Association

VSA – Vermont Superintendent’s Association

VSBA – Vermont School Boards Association